AUTHOR INDEX

Canadian Journal of Soil Science, Volume 67, 1987

Andreux, F., 647
Aulakh, M.S., 825

Bailey, A.W., 747
Baker, J., 271
Baldock, J.A., 489, 501
Barnett, G.M., 811
Barriuso, E., 647
Barry, D.A., 281, 293
Battiston, I..A., 731
Beauchamp, E.G., 779, 931
Benzing-Purdie, L.M. 409
Bettany, J.R., 609
Black, J.M.W., 965
Bootsma, A., 667
Broersma, K., 399

Camire, C., 417
Campbell, C.A., 457
Carefoot, J.M., 877
Carter, M.R., 333, 473
Chanasyk, D.S., 43
Chang, C., 263, 619
Cho, C.M., 659
Cihlar, J., 433
Cormier, R., 205
Cunningham, K.M., 715
Cutcliffe, J.A., 205, 705
Cutforth, H.W., 659

De Jong, R., 697
De Kimpe, C.R., 17, 221
Dionne, J.L., 811, 835
Dormaar, J.F., 221, 601
Drury, C.F., 779
Ducourneau, R., 709
Dudas, M.J., 135, 317, 953, 965
Dudley, R.L., 187
Dumanski, J., 95
Duquette, M., 175
Dwyer, L.M., 667

Evans, L.J., 33
Ewen, A.B., 631

Fox, C.A., 571, 765
Fullerton, S., 719
Fyfe. C.A., 187
Fyles, I.H., 117
Fyson, A., 591

Gaynor, J.D., 959
Genest, J., 835
Germida, J.J., 631
Ghabru, S.K., 561
Giles, J.F., 209
Giroux, M., 1, 521
Goh, T.B., 135
Goldberg, M.C., 715
Gordon, A.M., 65
Grant, C.A., 857
Grove, J.H., 513
Gunnerson, W.T., 209
Gupta, U.C., 205, 705, 973
Harris, S.A., 221
Hayhoe, H.N., 667
Hendershot, W.H., 175
Hill, R.G., 83
Huang, P.M., 135, 533, 867
Huffman, E., 95

Ivarson, K.C., 409

Jaakkimainen, M., 709
Janzen, H.H., 165, 609, 619, 845
Juo, A.S.R., 249

Kachanoski, R.G., 147, 199
Karamanos, R.E., 103
Kay, B.D., 353, 489, 501
King, R.H., 221
Kirby, P.C., 55
Klinka, K., 383
Knowles, R., 77
Koch, J.T., 353
Kodama, H., 709
Kowalenko, C.G., 367
Krause, H.H., 943
Krishnamurti, G.S.R., 533

Lamarre, M., 215
Lamontagne, L., 417
Lavkulich, L.M., 585, 787, 795
Levesque, M., 187
Lickacz, J., 919
Longstaffe, F.J., 953
Lowe, L.E., 383

Mackay, D.C., 309, 877
MacKenzie, A.F., 687
MacLean, A.A., 679
MacLeod, J.A., 333
Mathur, S.P., 187
Maule, C.P., 43
McGill, W.B., 117, 747

McKeague, J.A., 571, 697
McRae, K.B., 679
Mehuys, G.R., 55
Mermut, A.R., 561
Miller, J.J., 953
Miller, M.H., 281, 293, 731
Mistry, E., 341
Mitchell, W.A., 281, 293
Moore, T.R., 77

Naeth, M.A., 747
Neary, A.J., 341
Nunez-Barrios, A., 293
Nuttall, W.F., 545

Oaks, A., 591
O'Halloran, I.P., 147
Okusami, T.A., 249
Onofriechuk, E.E., 631

Pawluk, S., 135, 719
Pesant, A.R., 811, 835
Phipps, M., 95
Portal, J.M., 647
Preston, C.M., 187
Pridham, E., 973
Protz, R., 445, 571

Racz, G.J., 857
Ramlal, D., 943
Rennie, D.A., 825
Rice, C.W., 513
Richardson, J.L., 209
Ross, R.G., 83
Rust, R.H., 249

Sanderson, J.B., 973
Scagel, A.M., 383
Schnitzer, M., 489
Sen Tran, T., 1, 17, 521
Shamess, A., 893
Shaykewich, C.F., 659
Sheldrick, B.H., 693
Shelton, I.J., 731
Shipitalo, M.J., 445
Shipitalo, S.E., 187
Singh, J.P., 103
Singleton, G.A., 585, 787, 795
Smith, M.S., 513
Sommerfeldt, T.G., 263, 309
Soper, R.J., 639
Spurr, D.T., 545
Steppuhn, H., 457
Stevenson, D.S., 395
Stewart, J.W.B., 103, 147, 545
Stone, J.A., 571, 959
Stypa, M., 281, 293
St. Arnaud, R.J., 561

Tabi, M., 17
Tallas, M., 65
Tarnocai, C., 221, 765
Tel, D.A., 779
Tomar, J.S., 639, 687
Topp, G.C., 905
Trowbridge, R., 765

Ukrainetz, H., 545

Valentine, K.W.G., 221
Van Cleve, K., 65
Vanderstar, L., 341
Vreeken, W.J., 221
Vyn, T.J., 959

Wang, C., 83
Wang, M.C., 867
Wardenaar, E.C.P., 405
Webber, M.D., 893
Webster, G.R., 919
Weiner, E.R., 715
Wetter, L.G., 919
White, R.P., 973
Wires, K.C., 693, 905

Yee, A.R., 399

Zebchuk, W.D., 905
Zentner, R.P., 457

SUBJECT INDEX

Canadian Journal of Soil Science, Volume 67, 1987

Absorbance UV
  evaluation de la disponibilité de l'azote du sol, 521
Acid sulphate soil
  arsenic in acid sulphate soils, 317
Active fraction
  nitrogen cycling in subalpine reclaimed mine sites, 117
Adsorbed SO_4^{2-}
  sulphate relationships in Ontario forest soils, 341
Aeration
  N retention in hog manure by $Ca(H_2PO_4)_2 \cdot H_2O$, 687
Aggregate stability
  cropping-induced changes in soil aggregation, 501
Akaganeite
  birnessite in transformation of iron, 533
Aldehyde
  influence of polymers on aggregate stabilization, 209
Alluvium
  five alluvial landform soils in Nigeria, 249
Aluminum
  effects of Fe on Al precipitation, 135
Aluminum oxide
  sulphate relationships in Ontario forest soils, 341
Amelioration
  subsoiling and lime amelioration of Solonetzic soil, 919
Amine
  influence of polymers on aggregate stabilization, 209
Ammonia loss
  N retention in hog manure by $Ca(H_2PO_4)_2 \cdot H_2O$, 687
Arsenic
  arsenic in acid sulphate soils, 317
Azote
  hydrolyse acide des composés humiques, 647
  sources d'azote et de phosphore sur le tabac à cigare, 215
Azote du sol
  evaluation de la disponibilité de l'azote du sol, 521
Azote hydrolysable
  evaluation de la disponibilité de l'azote du sol, 521

Banded Zn
  zinc nutrition of corn, 973
Barley
  Ca and Mg effects on barley growth, 857
Bayerite
  effect of Fe on Al precipitation, 135
BET method
  multi-sample holder for quantasorb, 709
Biomass C
  biological properties of P.E.I. soils, 333
Biopores
  effects of cropping system on soil structure, 571
Bioporosity
  comparison of soil under conventional and zero tillage, 445
Biotite separation
  liquid magnetic separation of iron-bearing sands, 561
Birnessite,
  in transformation of iron, 533
Boron
  effect on B on brussels sprouts, 205
  foliar sprays of boron on rutabaga, 705
  N, S and B on rapeseed, 545
  retention of boron by soils, 33
Brandon soil
  mineralogical variability of clay in a Brandon soil, 83
Bray P1
  soil P tests and soil carbonates, 399
British Columbia
  classification of organic horizons, 383
Bromegrass
  cropping-induced changes in soil aggregation, 501
  influence of crops on soil carbohydrates, 489
Brown-heart
  foliar sprays of boron on rutabaga, 705
Brussels sprouts yields
  effect of B on brussels sprouts, 205
Bulk density
  pipelines in Solonetzic native rangeland, 747
  pore volume changes due to shrinkage, 905

Cadmium
  Halton Region sludge utilization, 893
Calcareous soils
  soil P tests and soil carbonates, 399
Calcium
  Ca and Mg effects on barley growth, 857
  cation nutrition of barley in saline soil, 619

Capability
relationships between soil survey and land use, 95
Carbofuran
Nosema lucustae and chemical insecticides on soil microbiota, 631
Carbohydrates
retention of boron by soils, 33
Carbon
cropping effect on soil organic matter, 845
fertilizer effects on soil productivity, 165
Carbon-13 NMR
^{13}C CPMAS NMR of peat, 187
Carbon dioxide
methane and CO_2 in subarctic fens, 77
Carbone
hydrolyse acide des composés humiques, 647
Catalysis
catalytic polymerization of hydroquinone, 867
Cesium-137
Soil ^{137}C loss and erosion, 199
Chemical properties
classification of organic horizons, 383
Chronofunctions
a Vancouver Island soil chronosequence, 795
phosphorus in a soil chronosequence, 787
Classification
five alluvial landform soils in Nigeria, 249
Clay-fixed NH_4^+
nitrogen dynamics in a Fraser Valley soil, 367
Coalmine reclamation
nitrogen cycling in subalpine reclaimed mine sites, 117
Colemanite
retention of boron by soils, 33
Compaction
effects of cropping system on soil structure, 571
Complexation
retention of boron by soils, 33
Complexes organo-mineraux
hydrolyse acide des composés humiques, 647
Corn
cropping-induced changes in soil aggregation, 501
influence of crops on soil carbohydrates, 489
soil erosion and corn yield, 731
soil properties and corn root growth, 293
soil sheaths on corn seedling roots, 591
Corn emergence
estimating time for corn emergence, 659
Corn yield
soil properties, corn yield and nutrient absorption, 281
zinc nutrition of corn, 973
Critical level
Zn in Saskatchewan soils, 103
Crop response
Zn in Saskatchewan soils, 103
Crop rotation
influence of crops on soil carbohydrates, 489
Crop yields
utilization of manure containing wood shavings, 309
Decay series
residual N from urea and manures, 931
Decomposition by soil microbes
degradation of melanoidins by soil microorganisms, 409
Degree days
soil temperature monitoring and analysis, 667
Degree of composition
^{13}C CPMAS NMR of peat, 187
Deltamethrin
Nosema lucustae and chemical insecticides on soil microbiota, 631
Denitrification
wheat straw incorporation on N dentrification, 825
Desalinization
soil desalinization, 263
Des-ethyl atrazine
tillage and atrazine and alachlor soil residues, 959
Dimethoate
Nosema lucustae and chemical insecticides on soil microbiota, 631
Drainage
soil water balance determination, 43
DTPA-extractable Zn
Zn in Saskatchewan soils, 103

Earthworms
comparison of soil under conventional and zero tillage, 445
Eastern Canada
effect of B on brussels sprouts, 205
Economic investment
relationships between soil survey and land use, 95
Effective CEC
contribution of aluminum to CEC, 175
Electro-ultrafiltration
extraction du K par EUF et proprietes du sol, 17

Elemental S
S oxidation under field conditions, 609
Erosion
soil erosion and corn yield, 731
ESR
birnessite in transformation of iron, 533
Evapotranspiration
soil water balance determination, 43
Excitation
isosbestic, dissociation constant of humic acid, 715

Fall nitrogen application
nitrogen dynamics in a Fraser Valley soil, 367
Fens
methane and CO_2 in subarctic fens, 77
Fertility
soil properties, corn yield and nutrient absorption, 281
soil properties and corn root growth, 293
Fertilizer K requirements
K status of chernozemic soils, 877
Fe-Al surface coatings
effect on Fe on Al precipitation, 135
Fe (II) oxidation
birnessite in transformation of iron, 533
Field
estimating time for corn emergence, 659
Field capacity method
soil water balance determination, 43
Field studies
effect of B on brussels sprouts, 205
Fixation du P
disponibilité du P des sols neutres et calcaires, 1
Fléole des prés
effets des regimes hydriques sur la reponse au potassium, 811
Fluorescence
isosbestic, dissociation constant of humic acid, 715
Fluorescent pseudomonads
soil sheaths on corn seedling roots, 591
Foliar treatments
foliar sprays of boron on rutabaga, 705
Foliar-applied Zn
zinc nutrition of corn, 973
Folisols
folisols from British Columbia, 765
Forest fertilization
distribution of N in a simulated soil profile, 271
Forest soil fertility
in situ nutrient extraction, 943
Formation of humic macromolecules
catalytic polymerization of hydroquinone, 867
Fourier series function
soil temperature monitoring and analysis, 667
Fumure potassique
effets des regimes hydriques sur la reponse au potassium, 811

Gas adsorption
multi-sample holder for quantasorb, 709
Gas flow system
multi-sample holder for quantasorb, 709
Genesis
salt fluxes in solonetzic B horizons, 719
Geographic information systems
methodology for soil erosion monitoring, 433
Gibbsite
effect of Fe on Al precipitation, 135
Glucosinolates
N, S and B on rapeseed, 545
Gradient method
soil water balance determination, 43
Gray Luvisols
distribution of N in a simulated soil profile, 271
Groundwater
salt fluxes in solonetzic B horizons, 719
transportability of iodide in organic soils, 353
Halton Region
Halton Region sludge utilization, 893
Heavy metals
Halton Region sludge utilization, 893
Herbicide
tillage and atrazine and alachlor soil residues, 959
High ^{15}N enrichment
high enrichment ^{15}N analysis, 779
Hog manure
N retention in hog manure by $Ca(H_2PO_4)_2 \cdot H_2O$, 687
Holocene
Quaternary and soils of Canada, 221
Hordeum vulgare
Ca and Mg effects on barley growth, 857
Horizon classification
classification of organic horizons, 383
Humic acid
isosbestic, dissociation constant of humic acid, 715

Hydraulic sampling
undisturbed soil sampling, 693
Hydrolyse acide
hydrolyse acide des composés humiques, 647
Hydromorphic
five alluvial landform soils in Nigeria, 249

Image analysis
effects of cropping system on soil structure, 571
Immobilization
S oxidation under field conditions, 609
transportability of iodide in organic soils, 353
Incubation
evaluation de la disponibilité de l'azote du sol, 521
Information theory
relationships between soil survey and land use, 95
Inorganic P
influence of texture and management on soil P forms, 147
Intact cores
estimating N mineralization: tillage and drainage effects, 513
Inyoite
retention of boron by soils, 33
Iodide-129
transportability of iodide in organic soils, 353
Ion exchange resin
in situ nutrient extraction, 943
Ionization constant
isosbestic, dissociation constant of humic acid, 715
Iron
effect of Fe on Al precipitation, 135
Iron oxide
sulphate relationships in Ontario forest soils, 341
Iron oxyhydroxides
arsenic in acid sulphate soils, 317
Iron-bearing minerals
liquid magnetic separation of iron-bearing sands, 561
Iron (III)
catalytic polymerization of hydroquinone, 867
Isosbestic point
isosbestic, dissociation constant of humic acid, 715

Kelowna I
soil P tests and soil carbonates, 399
Kelowna II
soil P tests and soil carbonates, 399

Labile P
influence of texture and management on soil P forms, 147
Laboratory
soil conditioner effects, 395
Land application
Halton Region sludge utilization, 893
Land management
wind-movable soil, 601
Land use
relationships between soil survey and land use, 95
Lanoraie Delta
soil analysis and classification, 417
Leaching
S oxidation under field conditions, 609
Leaching studies
acetic acid soxhlet weathering procedures, 585
Leaf analysis
K status of Chernozemic soils, 877
Length of season
soil temperature monitoring and analysis, 667
Lepidocrocite
birnessite in transformation of iron, 533
Lewis acid
catalytic polymerization of hydroquinone, 867
Light absorbing species
isosbestic, dissociation constant of humic acid, 715
Lime
subsoiling and lime amelioration of Solonetzic soil, 919
Liquid magnetic separation
liquid magnetic separation of iron-bearing sands, 561
Luvisolic soil
biological properties of P.E.I. soils, 333
soil suitability of reduced tillage, 473
Luzerne
effets des regimes hydriques sur la reponse au potassium, 811

Macroaggregates
influence of polymers on aggregate stabilization, 209
Macromorphology
effects of cropping system on soil structure, 571

Macropores
soil suitability for reduced tillage, 473
Maghemite
effect of Fe on Al precipitation, 135
Magnesium
Ca and Mg effects on barley growth, 857
cation nutrition of barley in saline soil, 619
Magnesium-bearing, calcite
identifying pedogenic carbonate minerals, 953
Management practices
influence of texture and management on soil P forms, 147
Manure
disposed of, 309
utilization of manure containing wood shavings, 309
Map delineation
mineralogical variability of clay in a Brandon soil, 83
Mass spectrometer
high enrichment ^{15}N analysis, 779
Matric potentials
soil conditioner effects, 395
Mean annual soil temperature
soil temperature monitoring and analysis, 667
Mean summer soil temperature
soil temperature monitoring and analysis, 667
Mehlich II
soil P tests and soil carbonates, 399
Melanoidins
degradation of melanoidins by soil micro-organisms, 409
Methane
methane and CO_2 in subarctic fens, 77
Méthodes d'analyse de P
disponibilité du P des sols neutres et calcaires, 1
Microaggregates
Influence of polymers on aggregate stabilization, 209
Microbial activity
nosema lucustae and chemical insecticides on soil microbiota, 631
Micromorphometric analysis
comparison of soil under conventional and zero tillage, 445
Mineral N flush
biological properties of P.E.I. soils, 333
Mineralizable carbon
fertilizer effects on soil productivity, 165
Mineralizable nitrogen
fertilizer effects on soil productivity, 165
Mineralization
cropping effect on soil organic matter, 845
Mineralization of N
wheat straw incorporation of N dentrification, 825
Mineralized N methods
estimating N mineralization: tillage and drainage effects, 513
Mineralogical variability
mineralogical variability of clay in a Brandon soil, 83
Mixed clay mineralogy
five alluvial landform soils in Nigeria, 249
Modelling
hydrolysis and subsequent nitrification of urea, 679
soil water retention, 697
Moisture
estimating time for corn emergence, 659
Moldboard plow tillage
estimating N mineralization: tillage and drainage effects, 513
Mole drainage
soil desalinization, 263
Monocalcium phosphate monohydrate
N retention in hog manure by tog, $Ca(H_2PO_4)_2 \cdot H_2O$, 687
Monosaccharides
wind-movable soil, 601
Multivariate analysis
Lanoraie Delta: soil analysis and classification, 417
Municipal sludge
Halton Region sludge utilization, 893

Nigeria
five alluvial landform soils in Nigeria, 249
Nitrification
hydrolysis and subsequent nitrification of urea, 679
nitrogen dynamics in a Fraser Valley soil, 367
Nitrogen
crop rotations and fertilizers on moisture, 457
cropping effect on soil organic matter, 845
fertilizer effects on soil productivity, 165
N, S and B on rapeseed, 545
surface runoff from corn tillage systems, 835
utilization of manure containing wood shavings, 309
Nitrogen cycling
nitrogen cycling in subalpine reclaimed mine sites, 117

Nitrogen fractionation
distribution of N in a simulated soil profile, 271
Nitrogen immobilization
^{15}N-labelled urea as affected by OM and N placement, 639
Nitrogen leaching
nitrogen dynamics in a Fraser Valley soil, 367
Nitrogen mineralization
soil incubations in polyethylene bags, 65
Nitrogen mineralization potential
biological properties of P.E.I. soils, 333
Nitrogen transformations
nitrogen dynamics in a Fraser Valley soil, 367
Nobleite
retention of boron by soils, 33
Noncrystalline oxide
birnessite in transformation of iron, 533
Nontronite
catalytic polymerization of hydroquinone, 867
Nosema locustae
and chemical insecticides on soil microbiota, 631
No-till corn
surface runoff from corn tillage systems, 835
No-tillage
estimating N mineralization: tillage and drainage effects, 513
Nutrient absorption
soil properties, corn yield and nutrient absorption, 281
Nutrient deficiency
soil erosion and corn yield, 731
Nutrient solution
Ca and Mg effects on barley growth, 857

Oil
N, S and B on rapeseed, 545
Ontario
soil 137-cesium loss and erosion, 199
Organic horizons
classification of organic horizons, 383
Organic manuring effects
residual N from urea and manures, 931
Organic material
folisols from British Columbia, 765
Organic matter
fertilizer effects on soil productivity, 165
Organic matter (soil)
wind-movable soil, 601
Organic P
influence of texture and management on soil P forms, 147
Organic residues
^{15}N-labelled urea as affected by OM and N placement, 639
Organic soil order
Folisols from British Columbia, 765
Organic soils
^{13}C CPMAS NMR of peat, 187
transportability of iodide in organic soils, 353
Oxygen
catalytic polymerization of hydroquinone, 867

Paleoenvironments
Quaternary and soils of Canada, 221
Paleosols
Quaternary and soils of Canada, 221
Parallel connection
multi-sample holder for quantasorb, 709
Peak scanning procedure
high enrichment ^{15}N analysis, 779
Peat
Quaternary and soils of Canada, 221
Peat profile
^{13}C CPMAS NMR of peat, 187
Peatlands
methane and CO_2 in subarctic fens, 77
Pedogenesis
surface morphology of quartz grains, 965
Pedogenic carbonate minerals
identifying pedogenic carbonate minerals, 953
Periodates
cropping-induced changes in soil aggregation, 501
Permanent charge
contribution of aluminum to CEC, 175
pH
fertilizer effects on soil productivity, 165
S oxidation under field conditions, 609
pH-dependent CEC
contribution of aluminum to CEC, 175
pH reduction
N retention in hog manure by $Ca(H_2PO_4)_2 \cdot H_2O$, 687
Phosphore-assimilable
disponibilité du P des sols neutre et calcaires, 1
Phosphore
sources d'azote et de phosphore sur le tabac à cigare, 215

Phosphorus
soil properties, corn yield and nutrient absorption, 281
surface runoff from corn tillage systems, 835
Phosphorus and moisture use
crop rotations and fertilizers on moisture, 457
Phosphorus fractionation
influence of texture and management on soil P forms, 147
phosphorus in a soil chronosequence, 787
Pipeline
pipelines in Solonetzic native rangeland, 747
Plant nutrients
wind-movable soil, 601
Podzol
sulphate relationships in Ontario forest soils, 341
Podzol development
a Vancouver Island soil chronosequence, 795
Podzolic soil
biological properties of P.E.I. soils, 333
soil suitability for reduced tillage, 473
Podzolizaiton
acetic acid soxhlet weathering procedures, 585
Polyethylene bags
soil incubations in polyethylene bags, 65
Polysaccharides
cropping-induced changes in soil aggregation, 501
Polyvinyl alcohol
influence of polymers on aggregate stabilization, 209
Pore volume
pore volume changes due to shrinkage, 905
Porosity
effects of cropping system on soil structure, 571
Potassium
Ca and Mg effects on barley growth, 857
cation nutrition of barley in saline soil, 619
deficiency, K status of Chernozemic soil, 877
surface runoff from corn tillage systems, 835
fixation, 877
release, 877
Potassium assimilable
extraction du K par EUF et propriétés du sol, 17
Potassium echangeable
effets des regimes hydriques sur la reponse au potassium, 811
extraction du K par EUF et propriétés du sol, 17
Potatoes
hydrolysis and subsequent nitrification of urea, 679
Prediction
hydrolysis and subsequent nitrification of urea, 679
Prelevements de potassium
effets des regimes hydriques sur la reponse au potassium, 811
Profile cutter
a new soil monolith hand tool, 405
Propriétés des sols
disponibilité du P des sols neutres et calcaire, 1
Propriétés du sol
extraction du K par EUF et proprietes du sol, 17
Protein
N, S and B on rapeseed, 545
Pyrophosphate
cropping-induced changes in soil aggregation, 501

Quartz
surface morphology of quartz grains, 965
Quaternary
Quaternary and soils of Canada, 221

Rangeland (native)
pipelines in Solonetzic native rangeland, 747
Rapeseed
N, S and B on rapeseed, 545
Ratiometer procedure
high enrichment ^{15}N analysis, 779
Reclamation
pipelines in Solonetzic native rangeland, 747
soil desalinization, 263
Regime hydrique
effets des regimes hydriques sur la reponse au potassium, 811
Remote sensing
methodology for soil erosion monitoring, 433
Residual ^{15}N
^{15}N-labelled urea as affected by OM and N placement, 639
Residual manure N
residual N from urea and manures, 931
Resines echangeuses d'anions
disponibilité du P des sols neutres et calcaires, 1
Ridge tillage
tillage and atrazine and alachlor soil residues, 959

Root growth
soil properties and corn root growth, 293
Runoff plots
soil 137-cesium loss and erosion, 199
Rutabaga
foliar sprays of boron on rutabaga, 705

Salinity
cation nutrition of barley in saline soil, 619
Salt flux
salt fluxes in Solonetzic B horizons, 719
Sample period
soil temperature monitoring and analysis, 667
Sand minerology
liquid magnetic separation of iron-bearing sands, 561
Scanning electron microscopy
surface morphology of quartz grains, 965
Season
salt fluxes in Solonetzic B horizons, 719
Seasonal nutrient fluctuation
in situ nutrient extraction, 943
Seedbed condition
soil erosion and corn yield, 731
Shrinkage
pore volume changes due to shrinkage, 905
Site preparation
in situ nutrient extraction, 943
Sodium
cation nutrition of barley in saline soil, 619
Soil bulk density
soil properties and corn root growth, 293
soil properties, corn yield and nutrient absorption, 281
Soil chemistry
pipelines in Solonetzic native rangeland, 747
Soil chronosequence
a Vancouver Island soil chronosequence, 795
phosphorus in a soil chronosequence, 787
Soil classification
folisols from British Columbia, 765
Lanoraie Delta: soil analysis and classification, 417
Soil conditioners
soil conditioner effects, 395
Soil erosion
methodology for soil erosion monitoring, 433
soil erosion in Quebec, 55
surface runoff from corn tillage systems, 835
Soil genesis
a Vancouver Island soil chronosequence, 795
Soil incubation
soil incubations in polyethelene bags, 65
Soil loss
soil 137-cesium loss and erosion, 199
Soil moisture
soil sheaths on corn seedling roots, 591
Soil organic matter
influence of crops on soil carbohydrates, 489
Soil phosphorus
phosphorus in a soil chronosequence, 787
Soil salinity
soil desalinization, 263
Soil sheath
soil sheaths on corn seedling roots, 591
Soil structure
influence of crops on soil carbohydrates, 489
soil suitability for reduced tillage, 473
Soil survey
relationships between soil survey and land use, 95
Soil testing
soil P tests and soil carbonates, 399
Soil type
soil sheaths on corn seedling roots, 591
Soil water
soil properties and corn root growth, 293
Soil water retention
soil conditioner effects, 395
soil water retention, 697
Soil water stress
K status of Chernozemic soils, 877
Soil weathering
acetic acid soxhlet weathering procedures, 585
Solonetzic soil
pipelines in Solonetzic native rangeland, 747
soil fluxes in Solonetzic B horizons, 719
subsoiling and lime amelioration of Solonetzic sol, 919
Soluble SO_4^{2-}
sulphate relationships in Ontario forest soils, 341
Soxhlet
acetic acid soxhlet weathering procedures, 585
Spring runoff
soil erosion in Quebec, 55
Spruce (white)
soil incubations in polyethylene bags, 65
Stable isotopes
identifying pedogenic carbonate minerals, 953
Statistics
relationships between soil survey and land use, 95
Stratigraphy
Quaternary and soils of Canada, 221

Subsoiling
subsoiling and lime amelioration of Solonetzic soil, 919
Substances humiques
hydrolyse acide des composés humiques, 647
Sulphate
S oxidation under field conditions, 609
sulphate relationships in Ontario forest soils, 341
Sulphur
N, S and B on rapeseed, 545
Summerfallow and moisture conservation
crop rotations and fertilizers on moisture, 457
Surface morphology
identifying pedogenic carbonate minerals, 953
surface morphology of quartz grains, 965
Surface runoff
surface runoff from corn tillage systems, 835

Tabac à cigare
sources d'azote et de phosphore sur le tabac à cigare, 215
Tagged urea
^{15}N-labelled urea as affected by OM and N placement, 639
Temperature
estimating time for corn emergence, 659
soil sheaths on corn seedling roots, 591
Texture
influence of texture and management on soil P forms, 147
soil water retention, 697
Thin section
undisturbed soil sampling, 693
Till-plant
tillage and atrazine and alachlor soil residues, 959
Topsoil loss
wind-movable soil, 601
Trace elements
arsenic in acid sulphate soils, 317
Transport kinetics
transportability of iodide in organic soils, 353

Undisturbed samples
a new soil monolith hand tool, 405
Undisturbed samples
pore volume changes due to shrinkage, 905
Undisturbed soil samples
undisturbed soil sampling, 693
Universal soil loss equation
soil erosion in Quebec, 55

Urea
distribution of N in a simulated soil profile, 271
Urea hydrolysis
hydrolysis and subsequent nitrification of urea, 679

Water balance
soil water balance determination, 43
Water flux
salt fluxes in Solonetzic B horizons, 719
Water stress
soil erosion and corn yield, 731
Water use efficiency
crop rotations and fertilizers on moisture, 457
Weathering classification
surface morphology of quartz grains, 965
Wet aggregate stability
influence of crops on soil carbohydrates, 489
Wheat straw
wheat straw incorporation on N dentrification, 825
Wind erosion
wind-movable soil, 601

Yield
soil erosion and corn yield, 731

Zoological activity
comparison of soil under conventional and zero tillage, 445